

RESOURCES



CHAPTER 26

RESOURCES

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Basics at a Glance

Recipe Abbreviations

approx.	= approximate
tsp or t	= teaspoon
Tbsp or T	= tablespoon
c	= cup
pt	= pint
qt	= quart
gal	= gallon
wt	= weight
oz	= ounce
lb or #	= pound (e.g., 3#)
g	= gram
kg	= kilogram
vol	= volume
mL	= milliliter
L	= liter
fl oz	= fluid ounce
No. or #	= number (e.g., #3)
in. or "	= inches (e.g., 12")
°F	= degree Fahrenheit
°C	= degree Celsius or centigrade

Volume Equivalents for Liquids



60 drops	= 1 tsp	
1 Tbsp	= 3 tsp	= 0.5 fl oz
1/8 cup	= 2 Tbsp	= 1 fl oz
1/4 cup	= 4 Tbsp	= 2 fl oz
1/3 cup	= 5 Tbsp + 1 tsp	= 2.65 fl oz
3/8 cup	= 6 Tbsp	= 3 fl oz
1/2 cup	= 8 Tbsp	= 4 fl oz
5/8 cup	= 10 Tbsp	= 5 fl oz
2/3 cup	= 10 Tbsp + 2 tsp	= 5.3 fl oz
3/4 cup	= 12 Tbsp	= 6 fl oz
7/8 cup	= 14 Tbsp	= 7 fl oz
1 cup	= 16 Tbsp	= 8 fl oz
1/2 pint	= 1 cup	= 8 fl oz
1 pint	= 2 cups	= 16 fl oz
1 quart	= 2 pt	= 32 fl oz
1 gallon	= 4 qt	= 128 fl oz

Equivalent Weights



16 oz	= 1 lb	= 1.000 lb
12 oz	= 3/4 lb	= 0.750 lb
8 oz	= 1/2 lb	= 0.500 lb
4 oz	= 1/4 lb	= 0.250 lb
1 oz	= 1/16 lb	= 0.063 lb

Scoops (Dishers)

Size/No. ¹	Level Measure	Color Code ²
6	2/3 cup	
8	1/2 cup	
10	3/8 cup	
12	1/3 cup	
16	1/4 cup	
20	3-1/3 Tbsp	
24	2-2/3 Tbsp	
30	2 Tbsp	
40	1-2/3 Tbsp	
50	3-3/4 tsp	
60	3-1/4 tsp	
70	2-3/4 tsp	
100	2 tsp	

¹ Scoops are left or right hand or squeeze type that can be used for both hands. Number on the scoop indicates how many level scoops make one quart. For example, eight No. 8 scoops = 1 quart.



² Use colored dots matching the brand-specific color coding of scoop sizes.

Ladles Portion Servers

Ladle fl oz	Approx. Measure	Portion Server fl oz
1 oz	1/8 cup	1 oz
2 oz	1/4 cup	2 oz
3 oz	3/8 cup	3 oz
4 oz	1/2 cup	4 oz
6 oz	3/4 cup	6 oz
8 oz	1 cup	8 oz
12 oz	1-1/2 cups	—

Ladles and portion servers (measuring-serving spoons that are volume-standardized) are labeled "oz." "Fl oz" would be more accurate since they measure volume, not weight.

Use ladles for serving soups, stews, creamed dishes, sauces, gravies, and other liquid products.

Use portion servers (solid or perforated) for portioning solids and semi-solids such as fruits and vegetables, and condiments.

Cooking or Serving Spoons

Solid Spoons



Perforated Spoons



Slotted Spoons



Spoons vary in length (11", 13", 15", 18", 21") for ease of use in cooking or serving. Spoons can have plastic handles that are heat-resistant. Level scoops, ladles, and portion servers provide more accurate portion control than serving spoons that are not volume-standardized measure.

Specialty Spoons



A thumb notch on a server or spoon handle prevents the spoon from slipping into the pan and prevents hands from sliding into the food. Triple-edge (solid or perforated) spoons have a flat edge that increases the area where the spoon touches the bottom of the pan when stirring.

Fraction to Decimal Equivalents



1/8	= 0.125
1/4	= 0.250
1/3	= 0.333
3/8	= 0.375
1/2	= 0.500
5/8	= 0.625
2/3	= 0.666
3/4	= 0.750
7/8	= 0.875

Metric Equivalents by Weight



Customary Unit (avoirdupois)	Metric Unit
Ounces (oz)	Grams (g)
1 oz	= 28.35 g
4 oz	= 113.4 g
8 oz	= 226.8 g
16 oz	= 453.6 g
Pounds (lb)	Grams (g)
1 lb	= 453.6 g
2 lb	= 907.2 g
Pounds (lb)	Kilograms (kg)
2.2 lb	= 1 kg (1000 g)






Metric Equivalents by Volume



Customary Unit (fl oz)	Metric Unit
1 cup (8 fl oz)	= 236.59 mL
1 quart (32 fl oz)	= 946.36 mL
1.5 quarts (48 fl oz)	= 1.42 L
33.818 fl oz	= 1.0 L

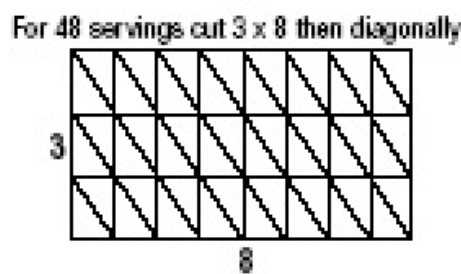
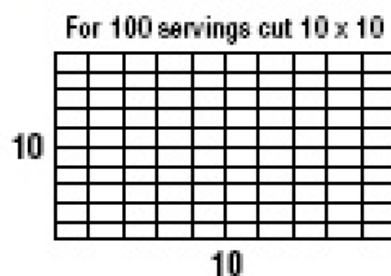
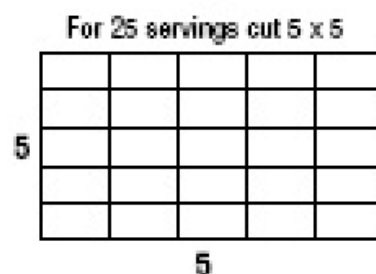
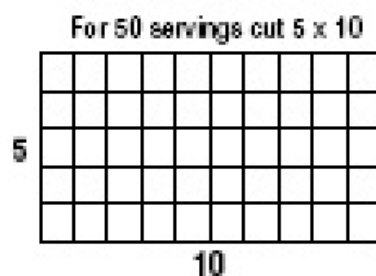
Steamtable Pan Capacity

Pan Size	Approx. Capacity	Serving Size	Ladle (fl oz)	Scoop #	Approx. # Servings
12" x 20" x 2-1/2" 	2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	64 80 96 128
12" x 20" x 4" 	3-1/2 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	112 135 168 224
12" x 20" x 6" 	5 gal	1/2 cup 3/8 cup 1/3 cup 1/4 cup	4 oz 3 oz 2.65 oz 2 oz	8 10 12 16	160 200 240 320

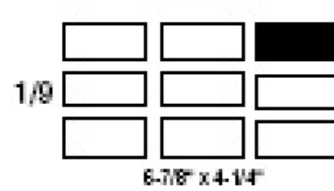
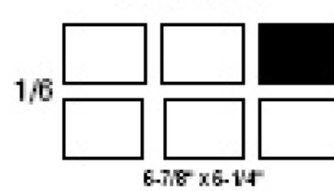
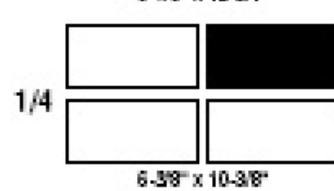
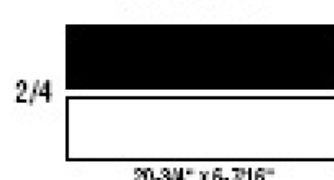
Approximate Dimensions of Serving Sizes from Different Pan Sizes

Pan	Approx. Size	No. and Approx. Size Servings per Pan		
		25	50	100
Baking or steamtable	12" x 20" x 2-1/2"	2" x 3-3/4"	2" x 2"	-----
Sheet or bun	18" x 26" x 1"	3-1/4" x 5"	3-1/4" x 2-1/2"	1-3/4" x 2-1/2"

Cutting Diagrams for Portioning



Other Pan Sizes



Steamtable or counter pans are available in various sizes. Smaller size pans may require the use of an adapter bar.

CHEESES

- **Process American Cheese**

Loaves: Can be kept for 1 year at a constant 32 °F in its original unopened package.

After opening, it can be kept well wrapped between 30 °F and 40 °F for up to 3-4 weeks.

Sliced: Can be kept for 6 months at a constant 32 °F in its original unopened package.

After opening, it can be kept well wrapped between 30 °F and 40 °F for up to 3-4 weeks.

Shredded: Can be kept for 5 months at a constant 32 °F in its original unopened package.

After opening, it should be used as soon as possible before mold develops.

- **Cheddar Cheese**

Blocks or Loaves: Can be kept for 1 year at a constant 32 °F in its original unopened package.

After opening, it can be kept well wrapped between 30 °F and 40 °F for 3-4 weeks.

Shredded: Can be kept for 6 months at a constant 32 °F in its original unopened package.

After opening, it should be used as soon as possible before mold develops.

- **Reduced Fat Cheddar Cheese**

Loaves: Can be kept for 5 months at a constant 32 °F in its original unopened package.

After opening it can be kept well wrapped between 30 °F and 40 °F for up to 3-4 weeks.

Shredded: Can be kept for 5 months at a constant 32 °F in its original unopened package.

After opening, it should be used as soon as possible before mold develops.

- **Mozzarella Cheese**

Loaves: Can be kept frozen at 20 °F or lower for 1 year in its original unopened package. After

opening it can be kept well wrapped at 35 °F for 7-10 days. Cheese received unfrozen can be cut

into individual loaves for quick freezing and kept for 1 year at 20 °F or lower.

- **Lite Mozzarella Cheese**

Loaves and shredded: Can be frozen at 20 °F or lower for 5 months in its original unopened

package. After opening it can be kept well wrapped at 35 °F for 7-10 days.

- **Cheese Blend**

Loaves: Are best if used within 9 months when stored at a constant 32 °F in its original unopened package. After opening, it should be kept well wrapped between 30 °F and 40 °F for 3-4 weeks.

Slices: Should be used within 7 months when stored at a constant 32 °F in its original unopened package. After opening, it should be kept well wrapped between 30 °F and 40 °F for 3-4 weeks.

NATIONAL SCHOOL LUNCH PROGRAM FOODS OF MINIMAL NUTRITIONAL VALUE (FMNV)

These foods are considered to have minimal nutritional value and cannot be purchased with CNP 290 funds. These may not be served in the same area where reimbursable meals are served.

- 1) **SODA WATER** – As defined by 21CFR 165.175 Food and Drug Administration Regulations, (class of beverages made by absorbing carbon dioxide in potable water, etc.) except no product shall be excluded from this definition because it contains artificial sweeteners or discrete nutrients added to the food such as vitamins, minerals and proteins.
- 2) **WATER ICES** – As defined by 21CFR 135.160 Food and Drug Administration Regulations, except that water ices which contain fruit or fruit juices are not included in this definition.
- 3) **CHEWING GUM** – Flavored products from natural or synthetic gums and ingredients which form an insoluble mass for chewing.
- 4) **CERTAIN CANDIES** – Processed foods made predominantly from sweeteners or artificial sweeteners with a variety of minor ingredients which characterize the following types:
 - (a) **Hard Candy** – A product made predominately from sugar (sucrose) and corn syrup which may be flavored and colored, is characterized by a hard, brittle texture and includes such items as sour balls, fruit balls, candy sticks, lollipops, starlight mints, after dinner mints, sugar wafers, rock candy, cinnamon candies, breath mints, jaw breakers and cough drops.
 - (b) **Jellies and Gums** – A mixture of carbohydrates which are combined to form a stable gelatinous system of jelly-like character and, are generally flavored and colored, and include gum drops, jelly beans, jellied and fruit-flavored slices.
 - (c) **Marshmallow Candies** – An aerated confection composed of sugar, corn syrup, invert sugar, 20% water and gelatin and egg white to which flavors and color may be added.
 - (d) **Fondant** – A product consisting of microscopic sized sugar crystals that are separated by a thin film of sugar and/or invert sugar in solution such as candy corn, soft mints.
 - (e) **Licorice** – A product made predominantly from sugar and corn syrup that is flavored with an extract made from the licorice root.
 - (f) **Spun Candy** – A product that is made from sugar that has been boiled at high temperature and spun at a high speed in a special machine.
 - (g) **Candy Coated Popcorn** – Popcorn that is coated with a mixture made predominantly from sugar and corn syrup.

*Petitions to amend these categories may be submitted on or before November 15, or May 15 of each year to: Chief, Technical Assistance Branch, Nutrition and Technical Services Division, FNS, USDA, Alexandria, VA 22302. **SOURCE:** Code of Federal Regulations, Title 7, Part 210, Appendix B.

BREAKFAST SUMMARY OF THE DIFFERENCES BETWEEN ENHANCED FOOD BASED AND NSMP

	Enhanced Food Based	NSMP/ANSMP (Assisted NSMP)
Menu Structure	A minimum of four required food items in specific quantities must be offered.	3 or more menu items 1 must be milk and any other 2 menu items
Nutrition Goals	$\frac{1}{4}$ RDA for breakfast Dietary Guidelines for Americans Goals are age appropriate	Same as Food Based
Verification of Nutrition Goals	Not required to conduct a nutrient analysis, but must meet Nutrient Standards. Nutrient analysis completed by State Agency	Weekly average nutrient analysis must meet Nutrient Standards.
Age/Grade Groupings	Grade: Preschool, K-12 (7-12 optional)	Grade: Preschool, K-12 (7-12 Optional) <u>or</u> Age: 3-6, 7-10, 11-13, 14-17 <u>or</u> Custom Groupings
Creditable Items	Same as traditional pattern, with the addition of 4 oz. yogurt creditable as 1 oz of meat/meat alternate.	All foods count (including desserts and condiments) except foods of minimal nutritional value unless these foods are combined with other creditable foods
Meat/Meat Alternate and/or Grains/Breads Alternate	1 oz. Each component <u>or</u> 2 oz. Meat/meat alternate <u>or</u> 2 oz. Grains/breads alternate Optional 7-12: additional bread/grain serving	No specific requirement
Juice/Fruit/Vegetable	Same as old meal pattern 100% juice ($\frac{1}{2}$ cup)	No specific requirement
Milk	8 fluid oz. required 6 fluid oz. Preschool Must offer variety	Must offer but no required amount Must offer variety
Offer versus Serve (OVS)	Same as traditional meal pattern, may decline any 1 food item OVS is optional for all grades Students must select at least three food items from the four items offered.	Optional for all grades Milk must be offered Minimum of 3 menu items offered Minimum of 2 menu items selected May decline only 1 of the offered menu items (condiments are not considered menu items, so may be declined)

LUNCH

SUMMARY OF THE DIFFERENCES BETWEEN ENHANCED FOOD BASED AND NSMP

	Enhanced Food Based	NSMP/ANSMP (Assisted NSMP)
Menu Structure	4 components, at least 5 food items Enhanced Food Based Meal Pattern	3 or more menu items (One must be an "entree" and one must be milk)
Nutrition Goals	1/3 RDA for lunch Dietary Guidelines for Americans Goals are age appropriate	Same as Food Based
Verification of Nutrition Goals	Not required to conduct a nutrient analysis, but must meet Nutrient Standards. Nutrient analysis completed by State Agency	Weekly average nutrient analysis must meet Nutrient Standards.
Age/Grade Groupings	Grades: Preschool, K-6, 7-12 (K-3 optional) Lunch must have minimum of 2 grade groups for K-12	Grade: Preschool, K-6, 7-12 (K-3 optional) <u>or</u> Age: 3-6, 7-10, 11-13, 14-17, <u>or</u> Custom groupings Lunch must have minimum of 2 age/grade groups for K-12
Creditable Items	Same as traditional meal pattern except grain desserts count toward the grains/breads requirement. 8 oz. yogurt may now be credited as 2 oz. meat/meat alternate	All foods count (including desserts and condiments) except foods of minimal nutritional value unless these foods are combined with other creditable foods.
Meat/Meat Alternate	Same as old meal pattern, with the addition of 8 oz. yogurt creditable as 2 oz. of meat/meat alternate	No specific requirement
Vegetables/Fruits	Increased to: ¾ cup/day K-3 ¾ cup/day + additional ½ cup per week K-6 1 cup/day 7-12	No specific requirement
Grains/Breads	Increased to: 10 servings/wk K-3 12 servings/wk K-6 15 servings/wk 7-12 Minimum of 1 serving per day	No specific requirement
Milk	8 fluid oz. K-12 6 fluid oz. Preschool Must offer variety	Must offer, but no required amount. Must offer variety.
Offer versus Serve (OVS)	Same as Traditional Meal Pattern, may decline any food item up to 2 food items	Entrée must be offered May <u>not</u> decline entree Milk must be offered/may be declined Minimum of 3 menu items offered Minimum of 2 menu items selected If more than 3 menu items are offered may decline only 2 of the offered menu items (condiments are not considered menu items, so may be declined)

NUTRITION WEBSITES

ORGANIZATION	SITE SPONSOR	WEB ADDRESS	DESCRIPTION OF WEBSITE
Action for Healthy Kids		www.actionforhealthykids.org	Nutrition and physical activity information for educators and parents.
America on the Move		www.americaonthemove.org	A national initiative dedicated to helping individuals and communities across our national make positive changes to improve health and quality of life.
American Academy of Pediatrics		www.aap.org	Information on children's ailments; other topics related to children and their health.
American Dietetic Association		www.eatright.org	How to find nutrition professionals in your area; nutrition fact sheets; nutrition tips of the day; National Nutrition Month information.
Body Positive		www.thebodypositive.org	Resources to help young people have a positive body image and healthy relationship with food; targets "tweens" ... ages 8-11).
Center for Disease Control (CDC)	Body and Mind	www.cdc.gov/nccdphp/dnpa	Resource for nutrition and activity issues; highlighting national campaigns such as "Kids Walk-To School" and "Turn Off Your TV"; also information on Body Mass Index (BMI).
		www.bam.gov	Fun nutrition information for kids.
		www.cdc.gov/powerfulbones	Calcium information for girls
Center for Health and Care in Schools		www.healthinschools.org.home.asp	News, resources, grant alerts on topics pertaining to health in schools; childhood obesity addressed.
Diabetes Services, Inc.	Diabetes Mall	www.diabetesnet.con/index/php	The latest diabetes information on food, nutrition, food safety, and health.

NUTRITION WEBSITES

ORGANIZATION	SITE SPONSOR	WEB ADDRESS	DESCRIPTION OF WEBSITE
Fruits and Veggies More Matters (formerly 5 A Day)	Produce for Better Health Foundation	http://fruitsandveggiesmorematters.org	Information on incorporating more fruits and vegetables into your diet; recipes; resources.
	Dole Foods	www.dole5aday.com	Wide array of information for kids, parents and teachers on how to increase consumption of fruits and vegetables.
	National Cancer Institute	http://fruitsandveggiesmorematters.org	Information on increasing consumption of fruits and vegetables.
Food and Drug Administration (FDA)		www.fda.gov	Information on all types of programs sponsored by the FDA, including useful information on nutrition and food safety resources.
Food Fit Company		www.foodfit.com	Up to date information for families on nutrition, culinary and fitness resources for a healthier lifestyle.
Harvard School of Public Health		http://www.hsph.harvard.edu/nutritionsource/fats.html	
Healthwindows.com	Healthwindows, Jr.	www.healthwindows.org/fitness.htm	A commercial-free zone for kids to learn how to live healthy and well; with a section on nutrition and fitness; contains links to numerous other sites.
International Food Information Council	International Food Information Council	www.kidnetic.com	Games for kids and facts on kids healthy eating and physical activity for parents and educators.
Kraft Foods	Kraft Kitchens	www.kraftfoods.com	Recipes to help busy parents with light dinner meals and activities for fun recipes.
March of Dimes		www.modimes.org	Provides a healthy library and nutrition information for newborns and for pregnant women.

NUTRITION WEBSITES

ORGANIZATION	SITE SPONSOR	WEB ADDRESS	DESCRIPTION OF WEBSITE
Minnesota Attorney General's Office	Olen Publishing	www.olen.com	Find nutrient contents of foods, based on the book "Fast Food Facts".
Montana Team Nutrition Program and School Nutrition Program		www.opi.state.mt.us/schoolfood/recessBL.html	The Montana Team Nutrition and School Lunch Program staff put together an informational booklet on the implementation of a Recess Before Lunch (RBL) policy.
National Dairy Council	Nutrition Explorations	www.nutritionexplorations.org	Interactive nutrition games for students; downloadable resources for teachers and parents.
	Mid Atlantic Dairy Association	www.dairyspot.com	School nutrition information for teachers.
	Milk Processor Education Program	www.whymilk.com	Educational resource on importance of milk targeted to moms and teens.
National Food Service Management Institute		www.nfsmi@olemiss.edu	Educational site includes useful information on nutrition and food safety resources.
National Institute of Health		www.nich.nih.gov/milk/kidsteens.cfm	Information for parents and fun games for children.
Nemours Foundation	KidsHealth	www.kidshealth.org	Health related information, including nutrition and fitness for parents, kids, and teens.
Nutrition.gov		www.nutrition.gov	A guide to nutrition and health information on federal government websites.
Pacific Science Center		www.exhibits.pacsci.org/nutrition	Kids can play games to make learning about nutrition fun.
Pear Bureau	Pear Bear Healthy Kids	www.usapears.com/kids/php	Information on pears; their nutritional value, recipes, activities, stories and recipes using pears.
Rutgers University	Cooperative Education	www.rce.rutgers.edu/health/nutritionlinks.asp	Information on your local extension office and what they offer; programs for kids, community; gardening; nutrition; 4-H.
	Food Stamp Nutrition Education	www.fsne.rutgers.edu	Nutrition resources for educators and parents.

NUTRITION WEBSITES

ORGANIZATION	SITE SPONSOR	WEB ADDRESS	DESCRIPTION OF WEBSITE
Tufts University	Nutrition Navigator	www.navigator.tufts.edu/family	A nutrition website that evaluates other nutrition related websites and provides links to those websites.
US Department of Agriculture	Food and Nutrition Services	www.fns.usda.gov	Information on nutrition assistance programs; child nutrition, food stamps, WIC; commodities
	Team Nutrition	www.fns.usda.gov/tn	Nutrition resources for schools: educators, parents, kids, school food service. Order free on line; enroll schools to join the program.
	Eat Smart, Play Hard	www.fns.usda.gov/eatsmartplayhard	Promotional program with resources targeted to kids to promote healthy eating and physical activity.
	Food and Nutrition Information Center	www.usda.gov/news/usdakids www.nal.usda.gov/fnic	Department of Agriculture site for kids. A directory to credible, accurate, and practical resources for consumers, nutrition and health professionals, educators; printable format educational materials, government reports, research papers and more.
US Department of Health and Human Services	Health Finder	www.healthfinder.gov	A guide to reliable health information for consumers.
	Girl Power	www.girlpower.gov	Targets health messages to the unique needs, interests and challenges of girls.